TEJUS
CONSULTANTS

Test Report on Cement

Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	M/s KRIDL
Sample ID	Cement
Date of Sample Tested	18.12.18
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	40 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	355 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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TEST REPORT

Clients	Bruhath Bangalore Mahanagara Palike
Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	M/s KRIDL
Total Weight in gm:	3000

SIEVE ANALYSIS

Type of Material	40 mm down size	Proposed Use	PCC
Sample Location	At Site/Plant	Date of Sampling	18.12.18
		Date of Testing	18.12.18

IS Sieve Size	Weight Retained in gm	Cum. Weight Retained in gm	Cumulative Weight Retained in %	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size
80.00mm	0	0	0.00	100.00	100
63.00mm	0	0	0.00	100.00	-
40.00mm	120	120	4.00	96.00	95-100
20.00mm	1368	1488	49.60	50.40	30-70
10.00mm	910	2398	79.93	20.07	10-35
4.75mm	490	2888	96.27	3.73	0-5
Pan	112	3000	100.00	0.00	

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	M/s KRIDL

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	**Proposed Use**	PCC
Location/Source	At Site/Plant	**Date of Sampling**	18.12.18
Period of Soaking	24 hours	**Date of Testing**	18.12.18

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.		662	631	680	
B	Weight of oven - dry sample gm.		652	621	670	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1685	1690	1697	
E	Bulk specific gravity	$\frac{B}{(C+A-D)}$	2.587	2.875	2.597	**2.686**
G	Absorption (%)	$\frac{(A-B)*100}{B}$	1.534	1.610	1.493	**1.546**

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Consultants	Tejus Consultants, Bangalore
Contractor	M/s KRIDL

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	18.12.18
		Date of Testing	18.12.18

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	225	225	7.50	92.50	90 - 100
2.36 mm	325	550	18.33	81.67	75 - 100
1.18 mm	310	860	28.67	71.33	55 - 90
0.600 mm	480	1340	44.67	55.33	35 -59
0.300 mm	820	2160	72.00	28.00	8-30
0.150 mm	650	2810	93.67	6.33	0 - 10
Pan	190	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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CONSULTANTS & TESTING CENTER

Highway / Building Material Testing | Structural Strengthening Solutions
Quality Control / Assurance / Audit | Proof Checking (Structural Designs & Drawings)
Soil Stabilization and Shoring Services | Non - Destructive Testing

NABL ACCREDITED AS PER ISO/IEC 17025:2005

Lab No.: CECTCP/KRIDL/QC/2018-19

Date: 19.12.2018

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : **Bruhat Bangalore Mahanagar Palike.**

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli.

Sample Identification : 8mm, 10mm TMT Bars

Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)

Date of test: : 19.12.2018

SLNo	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress ($N/mm^{2)}$	Tensile strength ($N/mm^{2)}$	Elongation, percent on gauge length
1	8	0.395	545	575	19
2	10	0.621	586	599	20

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For Civil Experts

Authorised Signature

174, Sri Ranga Complex, Amrutha Nagar Main Road, New Bank Colony, Konanakunte, Bangalore - 560 062.

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Test Report on Cement

Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	M/s KRIDL
Sample ID	Cement
Date of Sample Tested	20.12.18
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	38 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	350 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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TEST REPORT

nts	BRUHAT BENGALORE MAHANAGARA PALIKE
ject	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
nsultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
ntractor	M/s KRIDL

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

pe of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
cation/Source	At Site/Plant	Date of Sampling	20.12.18
riod of Soaking	24 hours	Date of Testing	20.12.18

S.No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	678	634	668	
B	Weight of oven - dry sample gm.	669	624	658	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1686	1693	1691	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.506	2.889	2.611	2.669
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.345	1.603	1.520	1.489

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Consultants	Tejus Consultants, Bangalore
Contractor	M/s KRIDL

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	20.12.18
		Date of Testing	20.12.18

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	222	222	7.40	92.60	90 - 100
2.36 mm	310	532	17.73	82.27	75 - 100
1.18 mm	450	982	32.73	67.27	55 - 90
0.600 mm	485	1467	48.90	51.10	35 -59
0.300 mm	720	2187	72.90	27.10	8-30
0.150 mm	650	2837	94.57	5.43	0 - 10
Pan	163	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	M/s KRIDL	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	**Proposed Use**	Concrete
Sample Location	Plant/At site	**Date of Sampling**	20.12.18
		Date of Testing	20.12.18

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	288	288	2.88	97.12	95 - 100
10.00 mm	4885	5173	51.73	48.27	25 - 55
4.75 mm	4110	9283	92.83	7.17	0 - 10
Pan	717	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Consultants	TEJUS CONSULTANTS
Contractor	M/s KRIDL
Total Weight:	10000 gms

SIEVE ANALYSIS

Type of Material	12.5 mm down size	Proposed Use	Concrete
Sample Location	At Site/Plant	Date of Sampling	20.12.18
		Date of Testing	20.12.18

IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	560	560	5.60	94.40	90-100
10.0	4680	5240	52.40	47.60	40-85
4.75	4555	9795	97.95	2.05	0-10
Pan	205	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	M/s KRIDL
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS-code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	20.12.18	27.12.18	7 days	8.120	22500	282	12.53	12.61
2	20.12.18	27.12.18	7 days	8.128	22500	284	12.62	
3	20.12.18	27.12.18	7 days	8.126	22500	285	12.67	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project:	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor:	M/s KRIDL
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference Code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	20.12.18	17.01.19	28days	8.130	22500	452	20.09	20.13
2	20.12.18	17.01.19	28days	8.128	22500	453	20.13	
3	20.12.18	17.01.19	28days	8.128	22500	454	20.18	

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Test Report on Cement

Project:	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor:	M/s KRIDL
Sample ID:	Cement
Date of Sample Tested:	22.12.18
Sample Submitted By:	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	40 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	355 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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TEST REPORT

	BRUHAT BENGALORE MAHANAGARA PALIKE
	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
	M/s KRIDL

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

	Fine aggregate (River Sand/ M sand)	**Proposed Use**	concrete
	At Site/Plant	**Date of Sampling**	22.12.18
	24 hours	**Date of Testing**	22.12.18

	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
	Weight of sturated surface dry sample gm.	655	645	635	
	Weight of oven - dry sample gm.	645	635	625	
	Weight of Pycnometer Filled with water gm	1275	1275	1275	
	Weight of Pycnometer + sample + water gm	1685	1680	1675	
	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.633	2.646	2.660	2.646
	Absorption (%) $\frac{(A-B)*100}{B}$	1.550	1.575	1.600	1.575

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TEST REPORT

Client:	Bruhat Bangalore Mahanagara Palike
Project:	Improvements to roads and drains at Kodigehalli village from 4th to 5th cross and other roads in ward No. 08, Kodigehalli
Consultants:	Tejus Consultants, Bangalore
Contractor:	M/s KRIDL

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material:	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location:	At Site/Plant	Date of Sampling	22.12.18
		Date of Testing	22.12.18

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.0mm	0	0	0	100.00	100
4.75mm	230	230	7.67	92.33	90 - 100
2.36mm	275	505	16.83	83.17	75 - 100
1.18mm	430	935	31.17	68.83	55 - 90
600µm	450	1385	46.17	53.83	35 -59
300µm	815	2200	73.33	26.67	8-30
150µm	650	2850	95.00	5.00	0 - 10
Pan	150	3000			-

Remarks: ✓ Satisfactory / Not Satisfactory

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